

35 USC §103 (Bertsch in view of Chase et al.)

The Bertsch reference is directed to an electrical connector device for placement between a female electrical outlet and a male plug, for use, for example, in trapping voltage spikes (col. 2, line 59). Applicant's invention is, by contrast, directed to a connector device for placement between a male electricity source (the ground power supply) and a female connector for transmitting power to an aircraft. Access to a ground power supply is particularly useful in airplane maintenance operations when the electricity-generating components of the airplane are shut down.

The Chase et al. reference is directed to a socket assembly having contactors lying in a pin-receiving hole. The Examiner states that, "Chase et al. teach slots in the female end of an electrical connector", but this is not understood from the reference. Chase et al. appears to teach the use of bands, spaced apart a distance W within the connector, having inwardly-bowed "beams" extending toward the center axis of the bands, so that the middle of the beams can bear against a pin.

The Chase et al. reference contains a good description of the background of the present invention. The Chase reference addresses the problem of how to keep an airport electrical power supply with a female connector, connected to the male connectors on the airplane, given the weight of the ground power cable. As discussed in the Background section of the present application, the weight of the power supply cable tends to cause the pins and sockets on the connectors to not stay in close connection, causing arcing and relatively rapid deterioration of the pins and sockets. The ground power cable is easily repaired or replaced, but the replacement of the male connectors on the aircraft is a time-consuming maintenance operation that keeps the airplane out of service during the time of the repair.

The present invention addresses the problem of needing to reduce the time necessary to replace or provide a new or optimum set of male connectors, attached to the aircraft, which can be attached to a ground power supply. Instead of a more time-consuming maintenance operation to replace the connectors that are more fixedly attached to the airplane, the connector of the invention can be easily removed and replaced by screwing and unscrewing several screws. The connector needs to stay attached to the aircraft until such time as it needs replacement.

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PATENT APPLICATION

Applicant's invention includes the use of slotted pin receptors, and a multi-layered assembly that permits pressure to be applied to the outer periphery of the pins after the male pins of the aircraft have been inserted into the connector, securing the connector to the pins so that the connector does not detach from the aircraft pins when force is applied to the ground power supply plug as it is being disconnected from the connector of the invention. Since the Bertsch and Chase references do not disclose or suggest the subject matter of Claim 1, it is respectfully requested that this rejection be withdrawn. Since Claims 2-4 depend from Claim 1, there are also allowable for the above reasons.

In view of the foregoing, it is respectfully requested that all rejections be withdrawn and Notice of Allowance be issued.